

### REMARKS

This is a response to the office action of June 27, 2005 in which the Examiner rejected the claims as unpatentable over Goodings in view of Soli. According to the Examiner, Goodings discloses the method and apparatus, but does not teach that the feedback detection means comprises bandwidth detection means for determining the presence of a feedback signal. However the Examiner asserts that Soli employs an adaptive filtering system operable over a selected frequency band, which the Examiner interprets as a bandwidth detection means.

The Examiner's rejection is respectfully traversed for the reasons set forth below.

With respect to the Examiner's comments regarding Goodings, applicants respectfully note that the output of the correlator 31 in Goodings provides an estimate of the residual noise in the signal, and it is used to directly adapt the filter, (col. 7 lines 36-39). Goodings explains in column 10, line 37, that in order to accommodate not only rapid adjustment of the coefficients  $h(m)$  following an abrupt change in conditions long after start-up, the counter could instead be triggered using a discriminator responsive to the level of the residual signal. Thus, the size of the residual signal will indicate that an abrupt change in conditions takes place, but this is not feedback detection means.

Soli teaches noise suppression and feedback circuits operable to focus the adaptive filtering systems employed therein over particular frequency bands of interest. In this way adaptive filtering capacity is concentrated in a predefined manner. As a result enhanced convergence of the adaptive filter across the noise and feedback bands of concern is enabled. Filtering resources are thus focused by employing shaping filters disposed to selectively transmit energy from specific spectral bands to the adaptive filter included within each circuit.

Accordingly, Soli teaches that by employing shaping filters arranged to selectively transmit energy from specific spectral bands, the adaptive filtering capacity may be concentrated in a predefined manner. In addition, one can appreciate from Soli, that a given signal shaping focuses noise suppression on a frequency band of interest. However, it is not suggested that bandwidth detection means would be of any use in such a system. That is, when adaptive filtering capacity is concentrated in a predefined manner, there is no use or benefit gained from bandwidth detection means.

Soli, discloses at col. 7, lines 56-60 of Soli, that a reference shaping filter 270 and error shaping filter 310 focus adaptive cancellation over a desired spectral range. There is thus no teaching or suggestion to use bandwidth detection means. The reference simply states that the two filters account for a focusing action with respect to the adaptive cancellation over a desired spectral range. Thus it appears that the focusing action is accomplished in a predefined manner without bandwidth detection. This teaches away from the present invention where the function of the feedback cancellation system to changing solutions is adjusted and is indeed not predefined.

It is therefore submitted that the references, either alone or in combination do not teach or suggest the claimed elements. In particular, the references do not teach or suggest the use of feedback detection means or the use of bandwidth detection means in such a feedback detection system.

The independent claims are believed to be patentably distinct, and thus the claims depending therefrom are likewise believed to be patentable as well.

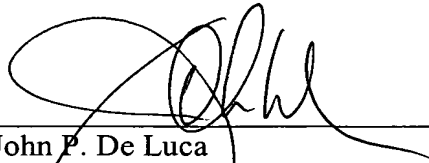
In view of the foregoing it is respectfully requested that the Examiner reconsider her rejection of the claims, the allowance of which is earnestly solicited.

Appln. No. 10/031,337  
Docket No. 66722-013-7  
Amdt. Dated Sept. 27, 05  
Reply to Office Action of June 27, 05

No additional fees are believed to be required. However the Director is authorized to charge Deposit Account No. 04-2223 for any required fees or credit overpayment thereto.

Respectfully submitted,

**DYKEMA GOSSETT PLLC**

A handwritten signature in black ink, appearing to read 'John P. De Luca', is written over a horizontal line.

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